

Precipitation URMA

6-hourly multi-sensor precipitation estimates from the 12 ConUS River Forecast Centers (RFCs) are mosaicked into a national product (the NCEP Stage IV) and remapped to the ConUS and Northwest NDFD grids for URMA.

Upcoming URMA upgrade

Nov 2014: NCO implemented a simplified database for incoming QPE data from the RFCs, enabling us to make the Stage IV/URMA upgrade.

In the upcoming RTMA/URMA upgrade package, additional re-mosaics for 6-hourly Stage IV/precip URMA will be made at 1/3/5/7 days after ending of the accumulation time.

In addition, hourly QPEs from the 8 Eastern/Central RFCs are first summed into 6-hourly totals, then combined with 6-hourly QPEs from the four Western RFCs, to take into account of regional differences in base (primary) analysis.

New vs. Old input QPE database



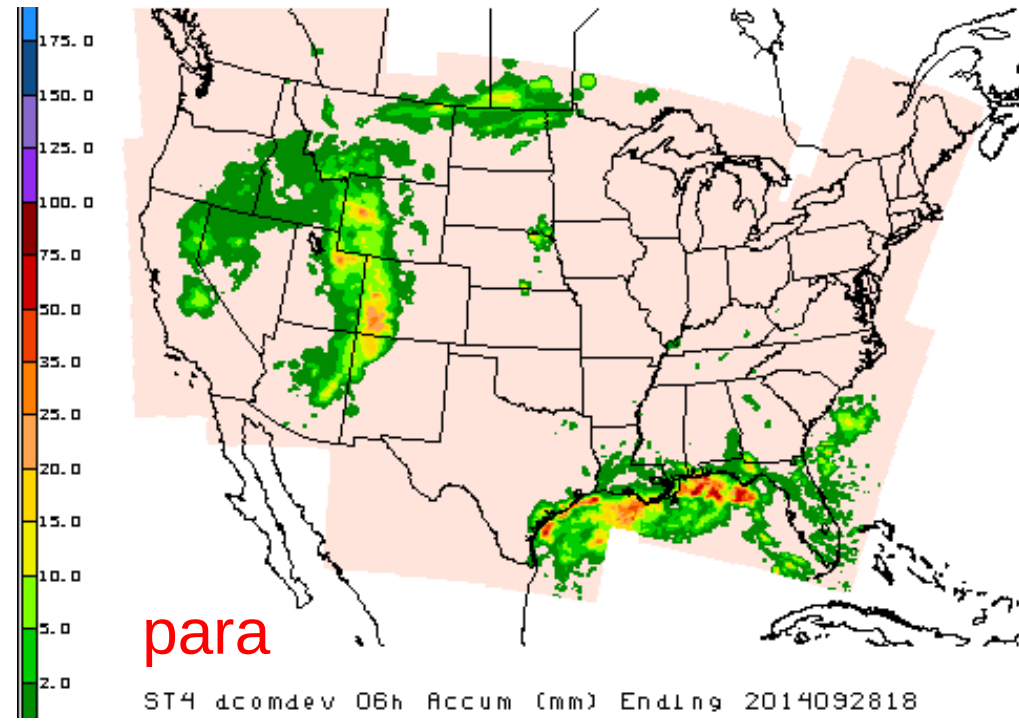
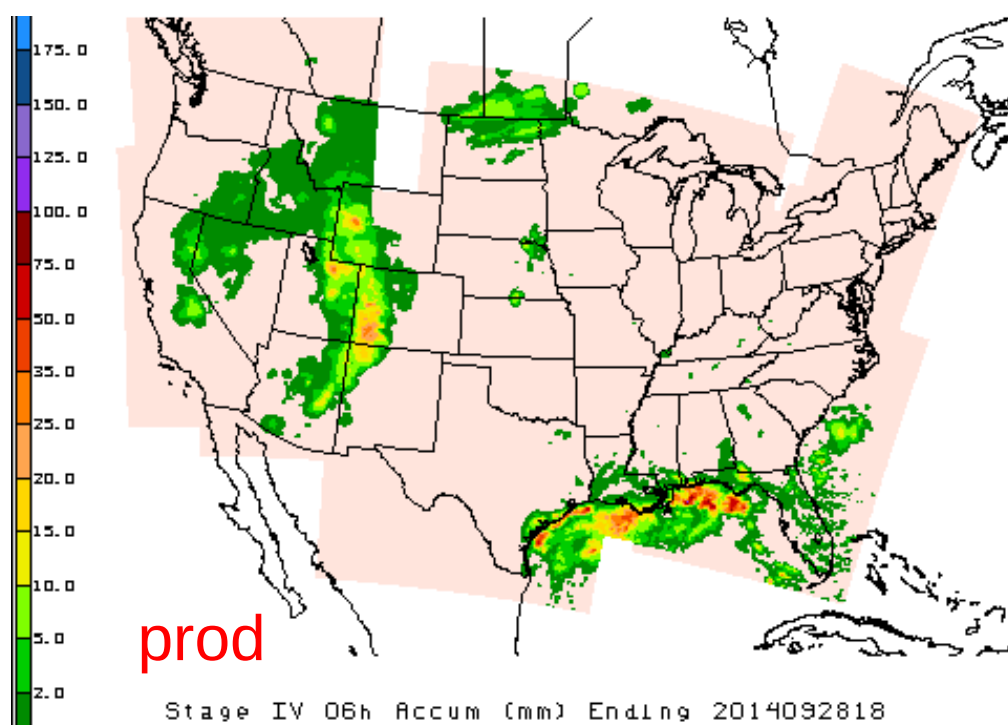
In the past, input from each RFC for each day (hourly and 6-hourly, early data and later updates) are piled up into one big file, up to 500 records for one RFC in one day. The pile is difficult to untangle, making it unfeasible to have a longer look-back period.

18-00Z	00-06Z	06-12Z	12-18Z
00-01Z	01-02Z	02-03Z	03-04Z

New input database: greatly simplified “flat” file Structure, making it easy to have a longer Look-back (rerun) period.

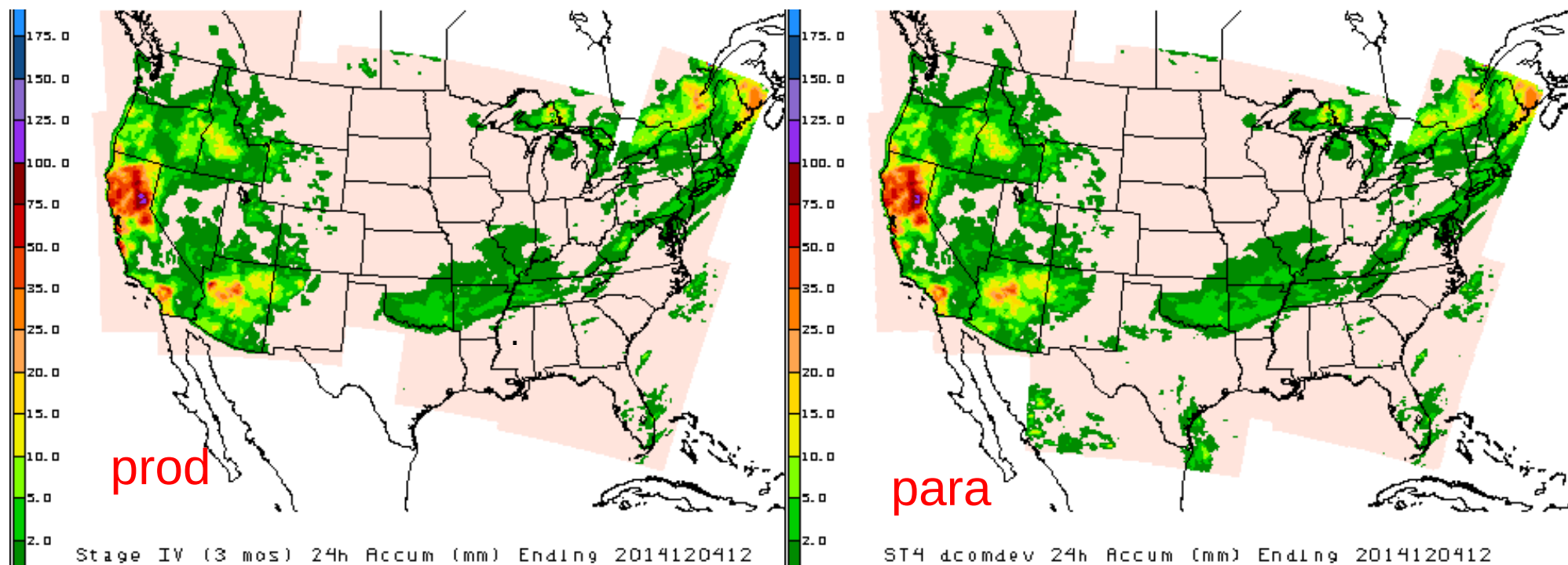
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Example 1: 06h accum ending 18Z 20140928



6-hourly QPE from MBRFC for 18Z 28 Sept was not received until after 15Z 30 Sept, too late to be included in the current production Stage IV/URMA. The 3-day re-run in the new Stage IV/URMA algorithm captured the late update from MBRFC.

Example 2: 24h ending 12Z 20141204



No 6-hourly QPE for WGRFC received for the 24h period ending at 12Z 4 Dec 2014. In the new Stage IV mosaic algorithm, WGRFC was among the Eastern/Central RFCs for whom hourly QPEs were considered base analysis and summed to 6-hourly totals before combining with the 6-hourly QPEs from the four Western RFCs to form the 6-hourly ConUS mosaic, so the outage did not affect the new Stage IV/URMA.